



VOL 6 NO 3

JUL-SEP 2003

NAVAL MEDICAL SURVEILLANCE REPORT

NMSR

Table of Contents

From the Population Health Director	2
2002 Medical Event Reports, NEPMU2	3
Naval Disease Reporting System (NDRS), 2003 Data Update.....	12
Patient Confidentiality and Sexual Health - A Discussion for Health Care Providers	14
Smallpox Vaccine Adverse Events in the Navy and Marine Corps	17
Vaccine Adverse Event Reporting System (VAERS) Update	23

From the Population Health Director

CAPT Bruce K. Bohnker, MC, USN (FS)

As autumn arrives in Tidewater, we reflect on a very busy period in the Population Health Directorate. First, we welcome several new people, including Ms. Danielle Dell who comes to us from the PhD program at the University of Pittsburgh and HN Garner who comes from Preventive Medicine Technician (PMT) school. We also have bid fair winds and following seas to Ms. Anuli Ajene who leaves us to work with HIV disease in Africa through a position with the University of Maryland. We also welcome CAPT Diana Novak back to NEHC as she assumes responsibilities as executive officer.

The most memorable event of the past 3 months was Hurricane Isabel, which tore through Norfolk in September. The hurricane did much damage to the community though NEHC only suffered some minor water damage and loss of 3 working days. My house was without electric power or telephones for 20 hours, and that was far better than most. Recovery for some personnel took up to a week due to lack of power and tree damage. Even the cellular telephones were down, so communicating with anybody at NEHC was a challenge; something to consider in your disaster planning process. We are now back up to speed, but still a memorable experience.

NEHC-PH has been involved with a number of ongoing issues that warrant comment. First, we host the Navy Epidemiology Board in early No-

vember, the group's first meeting since last December. It should be an excellent meeting with many lessons learned from real world deployments. The malaria outbreak in Liberia also has demanded a lot of attention and demonstrated that ancient scourge can still cause significant personnel losses to our active duty forces in hostile climates around the globe. CAPT McGinnis published his review of malaria from our NDRS reporting in a previous NMSR (Vol. 4, No. 4; October-December 2001). We have been providing surveillance for West Nile Virus infections and you should be seeing copies of our Medical SITREPS on West Nile Virus, either by message traffic or from our website (<http://www-nehc.med.navy.mil/prevmed/index.htm>). CDR Malakooti has been traveling to Africa to continue his work with HIV and AIDS in the African military. Finally, the proposal for the NEHC EPICENTER is starting to come together. That is a cooperative program with the Naval Health Research Center in San Diego, and the Naval Medical Information Management Center in Bethesda. It will expand medical surveillance through computer analysis of the Medical Data Surveillance System (MDSS) and the Medical Common Operating Picture (MEDCOP), with comparison to current surveillance programs such as NDRS and ESSENCE.

NEHC is supporting three Integrated Product Teams (IPTs) for BUMED that should be of interest to people across the Preventive Medicine

Navy Medical Surveillance Report

Executive Editor: CAPT B. Bohnker, MC, USN
 Managing Editor: CAPT J. McGinnis, MSC, USN
 Editors: Ms. A. Riegodedios, MSPH
 CDR M. Malakooti, MC, USN
 Wendi Suesz, MPH
 Assistant Editor: Ms. N. D. Branch

Submissions and inquiries regarding content or material to be considered for publication should be directed to the Editor, Naval Medical Surveillance Report, Navy Environmental Health Center, Population Health Directorate, 620 John Paul Jones Circle Suite 1100, Portsmouth, VA 23708-2103. Guidelines for submissions are located at <http://www-nehc.med.navy.mil/prevmed/epi/nmsrpage.htm> or e-mail epi@nehc.med.navy.mil. To be added to the mailing list, contact the Navy Environmental Health Center at DSN 377-0702 Comm: (757) 953-0702.

POPHEALTH POC: CAPT B. Bohnker: (757) 953-0710, CAPT J. McGinnis: (757) 953-0711, Ms. N. D. Branch: (757) 953-0702

Views and opinions expressed are not necessarily those of the Department of the Navy

DISCLAIMER: Every effort has been made to provide accurate, up-to-date information. However, the knowledge base is dynamic and errors can occur. By using the information contained in this list the reader assumes all risks in connection with such use. NEHC shall not be held responsible for errors, omissions nor liable for any special, consequential or exemplary damages resulting, in whole or in part, from any reader's use or reliance upon, this material.

community. IPTs are short-term teams created to address specific problems, with a specific duration and planned ending. CDR Rick Stoermann has been leading the Navy Medicine Population Health IPT. That team is setting up the framework for Navy Population Health for the next five years, and is nearly finished. CAPT Christopher Rennix is leading the Navy Medicine as a Defensive Weapons System IPT, which responds to a CNO tasking on that topic to the SG. I expect you will hear more about the products of that IPT over time. Finally, I am leading the Department of the Navy IPT on Fitness and Wellness. We are working opportunities for improvement in the areas of musculoskeletal injuries, stress and mental health, and nutrition and exercise, with a

lot of assistance from the Health Promotion team members. We will try to brief these out for the workshop in the spring.

And speaking of the workshop, CAPT Jim McGinnis continues to prepare for that important NEHC product. Please mark your calendars and plan to come to charming Chesapeake from 18-28 March, 2004.

As we approach the holiday seasons, the staff of the Population Health Directorate wish each and every one of you many blessings for the holidays and a joyful New Year.

2002 Medical Event Reports, NEPMU2

LCDR Craig Zinderman, MC, USNR

Navy Environmental & Preventive Medicine Unit No. 2, Norfolk, VA

Medical event reporting through the Naval Disease Reporting System (NDRS) continues to be important to the mission readiness of the US Navy. Timely monitoring for mission-degrading diseases and conditions can help identify trends early and prevent further spread of disease among the troops. Disease reports are vital in the prevention process, which begins with knowing how large the problem is and where and why illnesses occurred.

One of the goals of Navy Environmental and Preventive Medicine Unit No.2 (NEPMU2) is to provide timely feedback to users of NDRS. This write-up presents a brief overview of data from 2002. The first part of this report (Medical Event Reports by Disease Category) describes the inci-

dence of reportable diseases within the entire NEPMU2 AOR. The second portion (Medical Event Reports by Reporting Command) presents the top diseases reported from each reporting unit or region. An individualized report can be prepared, upon request, for any ship, unit, or clinic.

During CY 2002, 2,978 reports (confirmed, active duty only) were received from 41 different reporting commands. Overall, 26% of the ashore and surface commands in the NEPMU2 AOR used NDRS in 2002 to submit at least one Medical Event Report (MER). A breakdown of reporting commands is displayed in Table 1. Table 2 presents a comparison of select disease rates for 2001 and 2002.

Table 1: Medical Event Reporting by Type of Command, 2002
(Active Duty, Confirmed Reports Only)

Type of Reporting Command	Number of commands reporting	Number of commands within AOR	%Reporting (at least one MER in CY2002)	Total Number of MERs
Ashore Facility	27	51	53%	2659
Aircraft Carrier	6	7	86%	230
NEPMU2	NA	NA	NA	3
Other*	8	NA	NA	86
*Aircraft squadrons, Marine units, CBs, etc.				

Table 2: Medical Event Reports Highlights (Active Duty Only)

DIAGNOSIS	RATES (per 100,000 personnel)	
	2001*	2002**
Sexually Transmitted Diseases		
CHLAMYDIA	872.0	773.2
GONORRHEA	192.2	154.5
URETHRITIS (Non-gonococcal)	65.9	38.7
SYPHILIS (All Stages)	5.9	3.7
HEPATITIS B - ACUTE, SYMPTOMATIC	4.4	2.9
HEPATITIS C - ACUTE, SYMPTOMATIC	2.9	1.5
Vector-Borne Diseases		
ANIMAL BITE	7.7	5.8
DENGUE FEVER (SPECIFY TYPE)	0.7	0.0
LYME DISEASE	1.8	8.4
MALARIA	1.1	0.0
ROCKY MOUNTAIN SPOTTED FEVER	0.0	0.4
Enteric Diseases		
AMEBIASIS	0.0	0.4
CAMPYLOBACTERIOSIS	1.5	0.7
CRYPTOSPORIDIOSIS	1.1	0.0
FOOD POISON: V. PARAHAEM	0.0	0.4
GIARDIASIS	1.8	1.8
HEPATITIS A - ACUTE, SYMPTOMATIC	0.7	0.4
SALMONELLOSIS	2.9	2.6
SHIGELLOSIS	0.4	1.1
Respiratory Diseases		
INFLUENZA (CONFIRMED)	3.7	0.4
MENINGITIS (All Bacterial)	1.8	0.4
STREPTOCOCCAL DISEASE, GP A, INVASIVE	0.7	0.7
STREPTOCOCCAL DISEASE, GP A, PNEUMONIA	1.5	0.7
TUBERCULOSIS, PULMONARY ACTIVE	1.5	1.8
VARICELLA	5.9	2.2

*The 2001 rates were calculated by dividing the total reports by the estimated active duty (AD) population in the NEPMU2 AOR (271,572) and multiplying by 100,000.

**To calculate 2002 rates, the AD population in the NEPMU2 AOR in 2002 was estimated using the 2001 AOR population and the current total force strength. The rates were then calculated in the same manner as for 2001.

Sexually Transmitted Diseases:

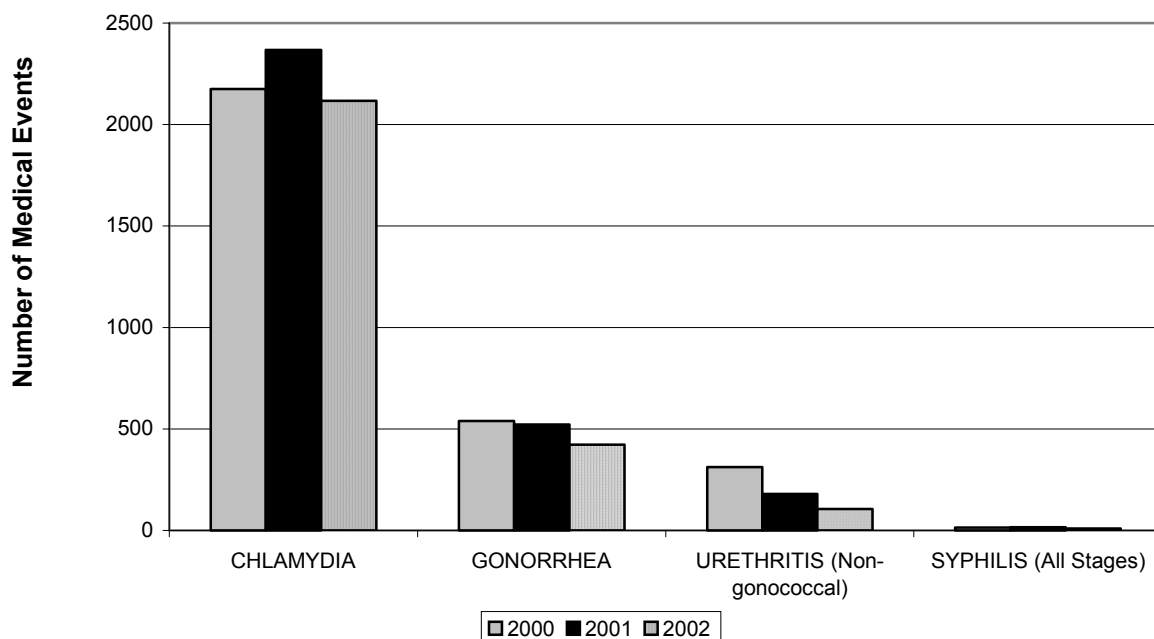
Most STDs declined in 2002 (see Figure 1). 90% of all confirmed reports in 2002 were STDs (Note: does not include Hepatitis B or C). This is considerably lower than the proportion of events in 2000 and 2001 that were STDs (96 and 95%, respectively). The number of reported cases of STDs (other than chlamydia) fell by 20-40% from 2001. This decline may be partially due to continued prevention and education campaigns.

The number of reported cases of chlamydia fell by 10%. However, chlamydia is still the most commonly reported disease. Efforts to improve

detection of asymptomatic cases and promote safe sexual practices should continue.

The high numbers of STDs reported annually reflects a high awareness that STDs are reportable and the continued expansion of STD screening programs. STDs can lead to chronic pelvic pain and infertility, and can facilitate the transmission of HIV, which is a fatal disease with no cure. Because of these enormous health consequences, STDs decrease mission readiness. Screening, treatment, and education of patients regarding STDs are vital elements in decreasing morbidity in the Navy/Marine Corps.

Figure 1: Sexually Transmitted Diseases



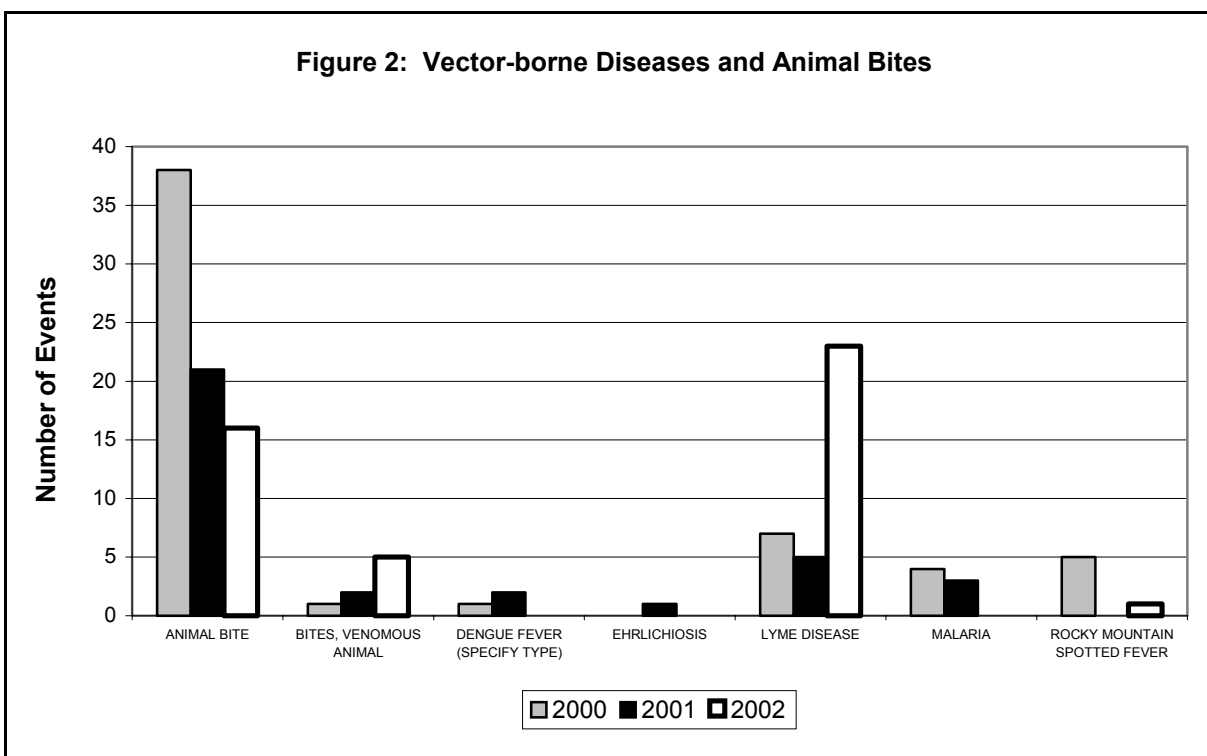
Vector-borne Diseases:

In 2002, vector-borne diseases increased from approximately 0.5% of all reported diseases to nearly 1%. This increase is predominantly due to a large number of Lyme disease cases reported from a single command (15 of 23) and most likely indicates better reporting from that command, instead of increased incidence (Figure 2). In the US, Lyme disease is localized to the Northeast, Mid-Atlantic, and North-central states, all within NEPMU2's AOR. Other vector-borne diseases (Rocky Mountain Spotted-Fever and malaria) are rare in the US. *Early recognition of an increase*

in cases could suggest a need for better insect control, re-emphasis of personal protective measures, or implementation of other prevention strategies.

Animal Bites:

The number of animal bites has steadily decreased over the past three years (Figure 2). In 2002, the 21 reported animal bites represent a 25% decrease from the previous year. The decrease may be due to a decrease in reporting, but there is no reason to expect a change in reporting practices.

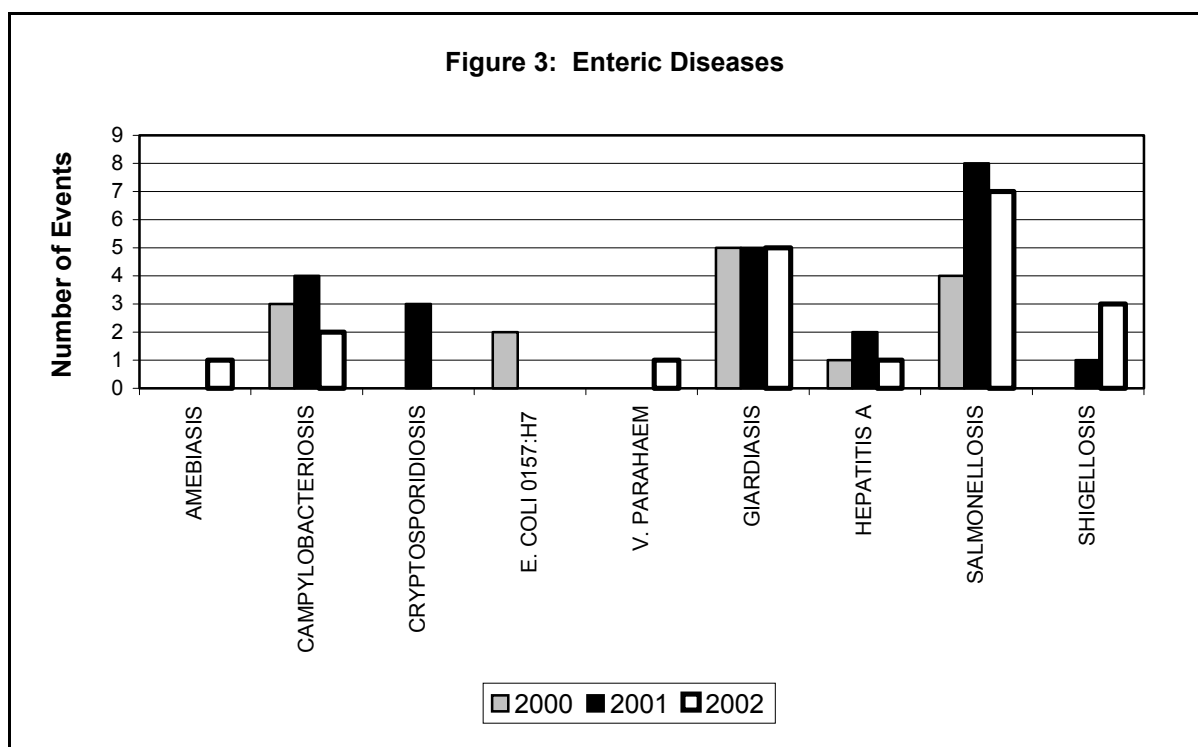


Enteric Diseases:

Few reports of enteric diseases were received (Figure 3). Most enteric diseases are viral in origin and of short-duration, so patients are less likely to seek medical attention and diagnosis. It is important to note that many units experienced increased rates of viral gastroenteritis in 2002, often due to Norovirus. However, reporting is not required for these illnesses, and they are rarely laboratory confirmed.

The low numbers of enteric reports overall may in-

dicade that troops are following Force Health Protection measures, and emphasizing food/water safety when deploying to other countries. Additional preventive measures include washing hands with soap and water, drinking only bottled or boiled water, avoiding tap water and ice from local foreign restaurants, and eating only thoroughly cooked food or fruits and vegetables that can be peeled. Most enteric illnesses are not life threatening, but can cause significant mission degradation if large numbers of a unit are incapacitated at one time.



**Editor's Note: Food/water associated illness, and any outbreak of disease, is reportable in the Navy. Therefore, outbreaks of viral gastroenteritis should be reported even if the specific etiology is not known.*

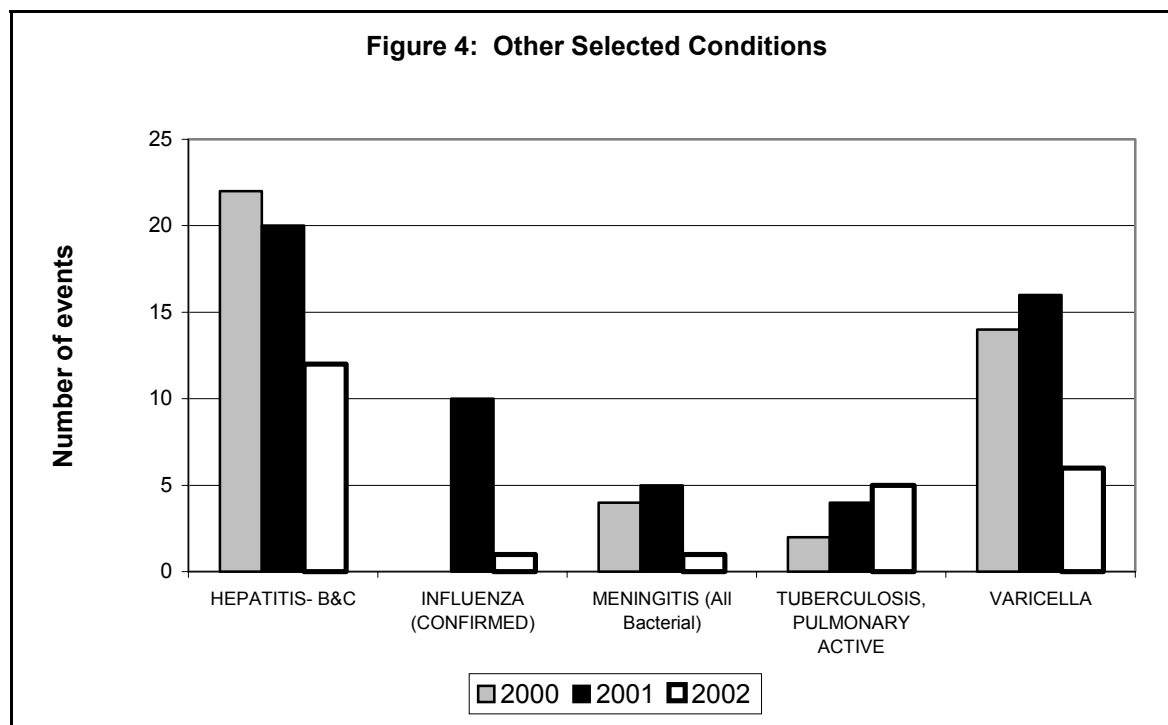
Other Communicable Diseases:

Hepatitis B and C: The number of reported viral hepatitis cases declined in 2002. Two thirds of these cases were Hepatitis B. The US Navy is well below the civilian Healthy People 2010 objective of 15-24 cases/100,000. Numbers may continue to fall in the future as all new accessions now receive Hepatitis B vaccine.

Respiratory Diseases: The number of reports for most respiratory conditions also declined in 2002. Although only a handful of tuberculosis cases occur each year, the steady increase over the past 3 years is worth noting. *Tuberculosis remains a threat to operational forces, particularly given its ability to spread in close-contact environments such as ships and recruit training centers.* Continued adherence to TB control programs, includ-

ing periodic Purified Protein Derivative (PPD) screening, contact tracing, and aggressive evaluation of PPD converters is warranted.

Influenza: Was widespread in the NEPMU2 AOR during the 2002-2003 winter. However, only one case of confirmed influenza was reported in 2002. This decrease may be due to changes in influenza screening practices or under-reporting. Some cases may have occurred too late in the winter season to be included in 2002 data. It is also recognized that the vast majority of cases are managed clinically and not laboratory confirmed. *Regardless, commands should continue to emphasize annual influenza vaccine for active duty and other personnel.* This is the best method to avoid manpower loss and mission degradation during difficult flu seasons.



Medical Event Reports by Reporting Command:

Individual commands can use NDRS to identify diseases that most impact their readiness. Focusing prevention efforts in these areas will help maximize resources and maintain readiness. Commands inputting reports to NDRS should periodically assess the data for their particular site. NEPMU2 can provide individual commands with periodic feedback on NDRS data and assistance with data analysis. The tables below list the most common MERs submitted from selected individual commands.

Important Note: Commands with higher or lower numbers of reportable disease(s) in 2002 do not necessarily have more or less disease than in

previous years. Changes in disease rates are most often due to better (or worse) reporting practices. For instance, the increase in heat stress cases at Camp Lejeune Naval Hospital is due to recent improvements in local data collection and not an actual increase in cases. It is also recognized that data losses can occur when MERs are submitted to higher echelons as part of the NDRS process.

Therefore, the data tables below should be considered a broad overview of the most common reportable diseases for each region. Changes in reporting should be considered when interpreting yearly differences in disease occurrence. Commands are encouraged to consider their own reporting practices when reviewing this information.

Aircraft Carriers				
		2002	2001	% Change
Total MERs		230	151	52%
2002 Rank Diagnosis				
1	Chlamydia	126	74	70%
2	Gonorrhea	89	69	29%
3	NGU	9	5	80%
4	Gonorrhea (Pregnancy)	2	0	---

Mid-Atlantic Region Branch Clinics				
		2002	2001	% Change
Total MERs		26	41	-37%
2002 Rank Diagnosis				
1	Chlamydia	13	30	-57%
2	Heat Exhaustion	5	0	---
3	Gonorrhea	3	4	-25%
4	Pertussis	2	0	---
5	Heat Stroke	1	0	---
5	Hepatitis B	1	1	0%
5	NGU	1	0	---

Includes Quantico BMC, VA; Dahlgren BMC, VA

Portsmouth, Naval Medical Center				
		2002	2001	% Change
Total MERs		191	146	31%
2002 Rank Diagnosis				
1	Chlamydia	150	85	76%
2	Gonorrhea	31	58	-47%
3	Meningitis, Aseptic	4	1	300%
4	Any Unusual Condition	4	0	---
5	Rickettsialpox	1	0	---
5	Syphilis	1	0	---

Tidewater, VA area Branch Medical Clinics				
		2002	2001	% Change
Total MERs		295	552	-47%
2002 Rank Diagnosis				
1	Chlamydia	226	361	-37%
2	Gonorrhea	60	113	-47%
3	Animal Bite	2	0	---
4	Mononucleosis	2	0	---
5	Heat Exhaustion	2	0	---

Includes Sewells Point BMC, VA; Oceana NAS BMC, VA; Little Creek BMC, VA; Dam Neck BMC, VA;

NE Region Branch Clinics				
		2002	2001	% Change
Total MERs		38	25	52%
2002 Rank	Diagnosis			
1	Chlamydia	32	18	78%
2	Lyme Disease	2	0	---
3	Gonorrhea	1	6	-83%
4	Meningococcal Meningitis	1	0	---
5	Salmonellosis	1	0	---
5	Syphilis	1	0	---

Includes Brunswick NAS BMC, ME; Groton Naval Ambulatory Care Center, CT; Patuxent River NMC, MD; Willow Grove Naval Air Station, PA

Great Lakes Naval Hospital, IL				
		2002	2001	% Change
Total MERs		933	1253	-26%
2002 Rank	Diagnosis			
1	Chlamydia	863	1120	-23%
2	Gonorrhea	44	81	-46%
3	Syphilis, Latent	5	1	400%
4	Tuberculosis, Active, Pulm.	4	3	33%

Camp Lejeune Naval Hospital, NC				
		2002	2001	% Change
Total MERs		388	392	-1%
2002 Rank	Diagnosis			
1	Chlamydia	163	219	-26%
2	NGU	77	93	-17%
3	Heat Injury (all types)	68	2	3300%
4	Gonorrhea	53	57	-7%
5	Lyme Disease	15	1	1400%
5	Salmonellosis	3	0	---

Cherry Point Naval Hospital, NC				
		2002	2001	% Change
Total MERs		140	7	1900%
2002 Rank	Diagnosis			
1	Chlamydia	107	4	2575%
2	Gonorrhea	26	2	1200%
3	Animal Bite	4	0	---
4	Lyme Disease	2	0	---
5	Giardiasis	1	0	---
5	Syphilis	0	1	---

Beaufort Naval Hospital, SC				
		2002	2001	% Change
Total MERs		250	181	38%
2002 Rank	Diagnosis			
1	Chlamydia	3	3	0%
2	Heat Exhaustion	1	1	0%
3	Gonorrhea	1	0	---
4	Any Unusual Condition	4	0	---
5	Giardiasis	1	0	---
5	Hepatitis B	1	0	---
5	Strep. Grp A, Invasive	1	0	---
5	Varicella	1	0	---

SE Region Branch Clinics				
		2002	2001	% Change
Total MERs		135	109	24%
2002 Rank	Diagnosis			
1	Chlamydia	84	61	38%
2	Gonorrhea	44	40	10%
3	Urethritis	2	3	-33%
4	Animal Bite	1	1	0%
4	Hepatitis A	1	0	---
4	Hepatitis B	1	0	---
4	Lyme Disease	1	0	---

Includes Atlanta BMC, GA; Athens BMC, GA; Kings Bay BMC, GA; Mayport BMC, FL; Key West BMC, FL

Jacksonville Naval Hospital, FL				
		2002	2001	% Change
Total MERs		110	120	-8%
2002 Rank	Diagnosis			
1	Chlamydia	54	60	-10%
2	Gonorrhea	25	32	-22%
3	Urethritis, NGU	6	13	-54%
4	Meningitis, Aseptic	4	0	---
5	Hepatitis B	3	2	50%
5	Hepatitis C	3	0	---

Pensacola Naval Hospital, FL				
		2002	2001	% Change
Total MERs		98	52	88%
2002 Rank	Diagnosis			
1	Chlamydia	77	32	141%
2	Gonorrhea	17	12	42%
3	Giardiasis	1	0	---
4	Pneumonia	1	0	---
5	Salmonellosis	1	1	0%
5	Shigellosis	1	0	---

Gulf Region Branch Clinics				
		2002	2001	% Change
Total MERs		34	29	17%
2002 Rank	Diagnosis			
1	Chlamydia	19	22	-14%
2	Gonorrhea	11	4	175%
3	Venomous Animal Bites	3	0	---
4	Mononucleosis	1	0	---
5	Syphilis	1	0	---

Includes Millington BMC, TN; Meridian BMC, MS; Gulfport BMC, MS; Pascagoula BMC, MS; Corpus Christi Naval Hospital, TX; Kingsville BMC, TX; Panama City BMC, FL

Latin American Region Branch Clinics				
		2002	2001	% Change
Total MERs		15	10	50%
2002 Rank	Diagnosis			
1	Chlamydia	13	5	160%
2	Gonorrhea	1	0	---
3	Occ Exposure to Blood-borne Pathogen	1	1	0%
4	Dengue Fever	0	2	---
4	Malaria	0	2	---

Includes Guantanamo Naval Hospital, Cuba; Roosevelt Roads Naval Hospital, Puerto Rico

Summary

Increases in reported diseases may indicate a need for preventive intervention. Similarly, decreases in disease may indicate that control and education efforts are becoming effective. Commands can use NDRS data to determine the need for future preventive actions and to track the effectiveness of measures that are already in place. Periodic feedback to reporting commands also allows them to monitor the completeness of their Medical Event Reporting program and adjust accordingly.

In this prevention process, strong leadership, innovative thinking, and collaboration among different stakeholders are required. The additional in-

vestment of time and effort will be negligible when compared with the high return on the investment - a healthier force and increased mission capabilities.

In the NEPMU2 AOR, for information on NDRS reporting or to obtain a summary for your command, contact LCDR Craig Zinderman via email: zindermanc@nepmu2.med.navy.mil; or at 757-444-7671 x3049.

To install NDRS and begin reporting from your command, consult NAVENVIRHLTHCEN'S NDRS website:
<http://www-nehc.med.navy.mil/prevmed/epi/ndrs.htm> or contact the cognizant NEPMU.

NAVAL DISEASE REPORTING SYSTEM (NDRS)**Summary of 2003 Data**

Tables 1 and 2 display the Medical Event Reports (MERs) received at Navy Environmental

Health Center (NEHC). Interested readers may calculate rates among Active Duty by dividing the

Table 1. ACTIVE DUTY Reportable Medical Events, Navy & Marine Corps, Case Frequencies, 01 Jan – 30 Sept 2003							
Disease	Total	USN	USMC	Disease	Total	USN	USMC
Amebiasis*	0	0	0	Lyme Disease	3	0	3
Anthrax*	0	0	0	Malaria (specify type) *	84	3	81**
Biological warfare agent exposure	0	0	0	Measles*	0	0	0
Bites, rabies vaccine & human rabies IG	15	7	8	Meningitis (aseptic, viral)	25	17	8
Bites, venomous animal	2	0	2	Meningitis (bacterial other than Meningococcus)	1	0	1
Botulism*	0	0	0	Meningococcal disease*	5	3	2
Brucellosis	0	0	0	Mumps	0	0	0
Campylobacteriosis*	3	2	1	Occupational exposure to blood borne pathogens	0	0	0
Carbon Monoxide poisoning*	0	0	0	Onchocerciasis	0	0	0
Chemical warfare agent exposure	0	0	0	Pertussis*	0	0	0
Chlamydia	1302	865	437	Plague*	0	0	0
Cholera	0	0	0	Pneumococcal pneumonia	0	0	0
Coccidioidomycosis	9	7	2	Polioomyelitis*	0	0	0
Cold injuries	0	0	0	Psittacosis (Ornithosis)	0	0	0
Cryptosporidiosis*	1	1	0	Q Fever*	0	0	0
Cyclospora*	0	0	0	Rabies, clinical human*	0	0	0
Dengue fever*	0	0	0	Relapsing fever	0	0	0
Diphtheria	0	0	0	Rheumatic fever	1	0	1
E. Coli 0157:H7 infection*	0	0	0	Rift Valley fever	0	0	0
Ehrlichiosis	0	0	0	Rocky-Mountain Spotted Fever	0	0	0
Encephalitis*	0	0	0	Rubella*	0	0	0
Filariasis	0	0	0	Salmonellosis*	11	3	8
Giardiasis	5	4	1	Schistosomiasis	0	0	0
Gonorrhea	265	166	99	Shigellosis*	4	4	0
Haemophilus influenza, type b	0	0	0	Smallpox*	0	0	0
Hantavirus infection*	0	0	0	Streptococcal disease, Group A	3	1	2
Heat injuries	117	4	113	Syphilis	14	10	4
Hemorrhagic fever*	0	0	0	Tetanus	0	0	0
Hepatitis, A (acute, symptomatic only)	1	1	0	Toxic shock syndrome	0	0	0
Hepatitis, B (acute, symptomatic only)	3	1	2	Trichinosis	0	0	0
Hepatitis, C (acute, symptomatic only)	3	3	0	Trypanosomiasis	0	0	0
Influenza (confirmed)	1	0	1	Tuberculosis, pulmonary active*	2	2	0
Lead poisoning	0	0	0	Tularemia*	0	0	0
Legionellosis*	0	0	0	Typhoid fever*	0	0	0
Leishmaniasis	2	0	2	Typhus*	0	0	0
Leprosy (Hansen's disease)	0	0	0	Urethritis (non gonococcal)	68	33	35
Leptospirosis*	0	0	0	Varicella	5	4	1
Listeriosis	0	0	0	Yellow fever	0	0	0

* Reportable with 24 hours

** One reported MER reflected outbreak of malaria falciparum. There were approximately 80 confirmed and suspect cases.

Data in the NMSR are provisional, based on reports and other sources of data available to the Navy Environmental Health Center. MERs are classified by date of report. Only cases submitted as confirmed are included.

frequencies by estimated mid-period strength of 379,939 for USN and 176,532 for USMC. Table

1 shows active duty only. Table 2 shows non-active duty beneficiaries.

Table 2. BENEFICIARIES Reportable Medical Events, Navy & Marine Corps, Case Frequencies, 1 Jan –30 Sept 2003							
Disease	Total	USN	USMC	Disease	Total	USN	USMC
Amebiasis*	0	0	0	Lyme Disease	0	0	0
Anthrax*	0	0	0	Malaria (specify type) *	0	0	0
Biological warfare agent exposure	0	0	0	Measles*	0	0	0
Bites, rabies vaccine & human rabies IG	40	17	23	Meningitis (aseptic, viral)	30	27	3
Bites, venomous animal	0	0	0	Meningitis (bacterial other than Meningococcus)	2	2	0
Botulism*	0	0	0	Meningococcal disease*	1	1	0
Brucellosis	0	0	0	Mumps	0	0	0
Campylobacteriosis*	1	1	0	Occupational exposure to blood borne pathogens	0	0	0
Carbon Monoxide poisoning*	0	0	0	Onchocerciasis	0	0	0
Chemical warfare agent exposure	0	0	0	Pertussis*	5	5	0
Chlamydia	450	266	184	Plague*	0	0	0
Cholera	0	0	0	Pneumococcal pneumonia	8	7	1
Coccidioidomycosis	10	9	1	Poliomyelitis*	0	0	0
Cold injuries	0	0	0	Psittacosis (Ornithosis)	0	0	0
Cryptosporidiosis*	0	0	0	Q Fever*	0	0	0
Cyclospora*	0	0	0	Rabies, clinical human*	0	0	0
Dengue fever*	0	0	0	Relapsing fever	0	0	0
Diphtheria	0	0	0	Rift Valley fever	0	0	0
E. Coli 0157:H7 infection*	1	1	0	Rocky-Mountain Spotted Fever	0	0	0
Ehrlichiosis	0	0	0	Rubella*	0	0	0
Encephalitis*	0	0	0	Salmonellosis*	33	24	9
Filariasis	0	0	0	Schistosomiasis	0	0	0
Giardiasis	7	5	2	Shigellosis*	22	16	6
Gonorrhea	48	38	10	Smallpox*	0	0	0
Haemophilus influenza, type b	1	1	0	Streptococcal disease, Group A	5	5	0
Hantavirus infection*	0	0	0	Syphilis	4	3	1
Heat injuries	1	0	1	Tetanus	0	0	0
Hemorrhagic fever*	0	0	0	Toxic shock syndrome	0	0	0
Hepatitis, A (acute, symptomatic only)	0	0	0	Trichinosis	0	0	0
Hepatitis, B (acute, symptomatic only)	4	4	0	Trypanosomiasis	0	0	0
Hepatitis, C (acute, symptomatic only)	2	2	0	Tuberculosis, pulmonary active*	1	1	0
Influenza (confirmed)	1	1	0	Tularemia*	0	0	0
Lead poisoning	0	0	0	Typhoid fever*	0	0	0
Legionellosis*	0	0	0	Typhus*	0	0	0
Leishmaniasis	0	0	0	Urethritis (non gonococcal)	0	0	0
Leprosy (Hansen's disease)	0	0	0	Yellow fever*	0	0	0
Leptospirosis*	0	0	0				
Listeriosis	0	0	0				

* Reportable within 24 hours

Patient Confidentiality and Sexual Health - A Discussion for Health Care Providers

Michael R. (Bob) MacDonald, CHES, CEHT, William B. Calvert MS, MBA, MPH
Navy Environmental Health Center, Portsmouth, VA

In addition to the obvious challenge of helping a person reduce their health-risk behavior, military health care professionals who treat and counsel Sailors and Marines for sexual health conditions also face some unique additional challenges. These challenges include confidentiality and the conflict that can arise between a health care provider's need for personal information, and the health care provider's legal and ethical requirements to report behavior that may be illegal, harmful, or detrimental to the Naval service.

Privacy is understandably important to every patient, particularly regarding sexual health. Military patients may also be concerned with perceived work-related implications of their condition. These concerns may be heightened for people who are married, those in leadership positions, those in highly sensitive job positions, those who are concerned their sexual behavior may violate the Uniform Code of Military Justice (UCMJ), those who personally know the shipboard "doc", or those who simply fear their privacy will not be protected.

Examples of conditions that may communicate a lack of privacy are the "STD clinic" sign or the STD clinic time-block, real or perceived "Command access" or mishandling of sensitive medical records, and real or perceived unauthorized release, or idle discussion, of personal information.

Another example is the perception among some Sailors and Marines that they will be punished for seeking sexually transmitted infection (STI) treatment. This perception holds that some medical professionals advocate discipline as a "cure" for repeated STIs. Typical anecdotes may be the Sailor who was denied liberty call for multiple STIs during a cruise, the Marine who is told "You know - if this happens again we'll report it to your Commanding Officer," or the leader who announces to a crew that they "will not pick-up any STIs on this float - or else."

These perceptions persist even though the Armed Forces Epidemiological Board specifically discouraged the use of punishment to control STIs over three decades ago.^{1, 2}

When Sailors and Marines perceive a lack of privacy or fear discipline for their infection, STI prevention and control is hindered. Some people may seek treatment from a civilian source. Others may self treat with medications purchased over-the-counter in foreign ports or may try folk remedies. They may delay treatment or avoid seeking treatment altogether. This could result in asymptomatic carrier states, which may spread the untreated STI to others, or result in more serious complications such as Pelvic Inflammatory Disease (PID)³ or latent syphilis. Some people might purge their medical records of documentation of previous STIs, thereby impeding follow up treatment. When Sailors and Marines do not seek care from our military health care system, we lose the opportunity to provide appropriate treatment, prevention counseling, and partner referral. These unique challenges can and must be overcome. Military medical professionals are most effective when their clientele perceive them as trusted healers and helpers.

When is the health care worker required to disclose information shared by a patient during treatment?

Article 1137 of US Navy Regulations require persons in the Naval service to report to superior authority all offenses under the Uniform Code of Military Justice (UCMJ) that come **under their observation**. Violation of this article is punishable under the UCMJ. The guidance that has been provided by the Deputy Assistant Judge Advocate General (Criminal Law) is that the term "observation" should be strictly interpreted, i.e. it is limited to actual observed (first hand knowledge) offenses and that hearsay reports (verbal accounts) are not actionable. That does not mean hearsay disclosures can't be reported, but that a failure to do so is not a violation of Navy Regulations.⁴

Regarding homosexual conduct, a 1998 DoD report concludes, *"It has been alleged that DoD doctors...are required to, and do, disclose confidential communications concerning homosexual conduct to commanders. We found that none of the Services require health care professionals to report information provided by their patients, unless, in the judgment of the health care professional, it is necessary to do so in order to protect the patients or to ensure the safety or security of military personnel or the accomplishment of the military mission."*⁵

Specific requirements for a health care worker to report disclosures by clients include cases of suspected child physical or sexual abuse, when clients express threats to cause harm to themselves or someone else, or if it is clear to the health care worker that clients are unfit for service.

Concerning sexual partner referral, spouses will always be notified of the HIV-positive status of a service member.⁶ Regarding other STIs, and non-spousal sexual partners of HIV positive patients, health care workers will notify only named sexual partners of their exposure, but will not divulge the name of the patient to the partner.^{6, 7}

The Privacy Act and the Health Insurance Portability and Accountability Act (HIPAA) govern access to and release of health/medical information. DoD implementing guidance for these acts can be found in DoD 5400.11-R, "DoD Privacy Act Program," and DoD 6025.19-R, "DoD Health Information Privacy Regulation." In general, personally identifiable health information of individuals shall not be used or disclosed except for specifically permitted purposes (e.g. law enforcement, military mission activities and public health to name a few) and must be the minimum amount of information necessary to accomplish a valid use or disclosure purpose. Any questions on the release of health information should be referred to the Military Treatment Facility's (MTF's) Privacy Officer.

The Manual of the Medical Department (MANMED) provides additional guidance for

medico-legal issues including entries by health care professionals and access/release of medical information.⁸ Article 16-37 of the MANMED states *"Access is restricted to persons with a legal need to know about the information contained in the medical record..."* Additionally, the manual states, *"The following information cannot be released without the patients' informed consent... (b) Never release, for a routine inquiry, prognosis or sensitive information about the admission of the patient such as ...venereal or other sexually transmitted diseases."* Article 16-9 restricts access to medical records to authorized medical service personnel and has specific exceptions to access specified within this article.

The authority to release medical information of an active duty service member to his or her commanding officer is provided in Navy Regulations Article 0820, Welfare of Personnel. This article directs that the Commanding Officer maintain a satisfactory state of health and physical fitness of the personnel under his or her command. The release of medical information is crucial in the ability of the commanding officer to fulfill this obligation. It is noted that the commanding officer is also bound by the laws referenced above in the use and any further disclosure of an individual's medical information.⁴

Access to medical records for non-healthcare-related purposes is not unique to the military. Civilian authorities can similarly access the records of civilians by subpoena and/or court order, in accordance with state and federal laws.

Documenting and Reporting "Misconduct" in a medical record is addressed in the Navy Manual of Medicine (MANMED) Article 16-38, which states *"US Navy Regulations, articles 1123 and 1124 require that Naval personnel be advised in writing when entries are made in their medical records relative to disease or injury attributed to misconduct, or indicating the use of intoxicants or habit forming drugs to a degree presumed to disqualify the member physically, mentally, or morally for performance of duties."* Additionally, it states to *"seek legal advice regarding"* these matters.

Regarding the confidentiality of the epidemiologi-

cal interview of HIV positive active duty members, *"Information obtained from a service member during or as a result of an epidemiologic assessment interview may not be used against the service member in a court martial; nonjudicial punishment; involuntary separation (other than for medical reasons); administrative or disciplinary reduction in grade; denial of promotion; an unfavorable entry in a personnel record; bar to reenlistment; and any other action considered by the Secretary of the Navy to be an adverse personnel action. The term epidemiological-assessment interview means: that part of the medical assessment of an HIV-1 positive individual where the questioning of the member is for the direct purpose of obtaining epidemiologic or statistical information regarding the occurrence, source, and potential spread of the infection."*⁶

An exception exists for HIV positive active duty members who are subject to disciplinary action under the UCMJ and/or administrative separation for failure to comply with a written "preventive medicine order" (PMO).⁹ This order states:

"Prior to engaging in sexual activity, or any activity in which your bodily fluids may be transmitted to another person, you must verbally advise any prospective sexual partner that you are HIV positive and the risk of possible infection.... If your partner consents to sexual relations, you shall not engage in sexual activities without the use of a condom.... You must advise your potential partner that the use of a condom does not guarantee that the virus will not be transmitted."

Sexual Health and Responsibility Program (SHARP), while not policy makers or medical-legal authorities, suggests these guidelines for health care workers:

- Provide for the health care needs of your patients, make appropriate notations in the medical record, and maintain confidentiality of the medical record in accordance with laws and regulations.
- Be cognizant of the fact that there is a proc-

ess for law enforcement authorities to access medical records when they have due cause, and that providers can be called to testify regarding any entry they make in the medical record.

- There should never be a need for the health care worker to make any standard opening statements about liability or Miranda-like warnings regarding the information patients might share. Do not open sessions with "warnings" or "promises." Instead, be prepared to answer specific questions the patient may ask regarding what is written, who has access to the record, and how the patient's personal medical information is handled and protected in the process of partner notification and disease reporting.
- Regarding requests for information from medical records, refer the requestor to the MTF medical records Privacy Officer, where policies and procedures exist that ensure appropriate protection and release of personal medical information.
- Consider that the use of discipline as a "cure" or prevention for STIs can damage a service member's trust in the health care system and may reduce health-seeking behavior.
- Know your state laws relative to reporting and partner notification.
- Seek clarification from your chain of command and its legal advisors when you need it.

Perception equals reality. Navy Medicine cannot assist patients who do not seek care. Military medical professionals are most effective when their clientele perceive them as trusted healers and helpers.

References

1. DoD 1973. Armed Forces Epidemiological Board. Confidentiality of Venereal Disease Records in the Military Service, 23 Jan 1973
2. DoD 1973. Armed Forces Epidemiological Board. DoD Directive 6200.1 27 April 1973 Venereal Diseases Control Program of the Armed Forces, 26 Sep 1973
3. Ryan-Wenger and Lowe: Women's Health Issues, 2000 (10) 6, Deployed Women's Health Care, Nov-Dec 2000

4. E-mail communication between NEHC-SHARP and Deputy Staff Judge Advocate, Bureau of Medicine and Surgery, 21 April 2003
5. Office of the Under Secretary of Defense (Personnel and Readiness), Report to the Secretary of Defense: Review of the effectiveness of the application of the department's policy on Homosexual Conduct in the Military, April

1998

6. DODI 6485.1, Mar 91 and SECNAVINST 5300.30C, Management of HIV-1, March 1990
7. Navy Environmental Health Center TM-HP-6100.02. Sexual Partner Counseling and Referral – Information for Navy Health Care Providers, May 2003
8. NAVMED P-117, Manual of the Medical Department

Smallpox Vaccine Adverse Events in the Navy and Marine Corps

Ms. Wendi Suesz, MPH , Navy Environmental Health Center, Portsmouth, VA

The Navy and Marine Corps smallpox vaccine program was launched in January 2003. Past experience with the smallpox vaccine indicated that among primary vaccinees 14 to 52 individuals per million experienced life-threatening reactions and 48 to 900 individuals per million experienced reactions that were serious but not life threatening.¹

The smallpox vaccine is mandatory for all designated service members unless contraindicated.² Before receiving the vaccine, military personnel are screened for conditions which preclude vaccination according to guidelines set forth in the Secretary of Defense's Clinical Policy.³ Major contraindications include: a history of atopic dermatitis; active acute, chronic, or exfoliative skin conditions that disrupt the epidermis; pregnant women or women intending to become pregnant within 28 days; and persons who are immunocompromised.

Even after screening, adverse events may occur. As of March 28, 2003, surveillance for smallpox vaccine adverse events identified 10 cases of myopericarditis and 5 cases of cardiac ischemic events among vaccinees.⁴ Subsequent investigations could not exclude a causal relationship between myopericarditis and smallpox vaccination. As a result, the Advisory Committee of Immunization Practice (ACIP) set forth guidelines recommending screening for individuals who have known underlying heart disease or three or more known cardiac risk factors.⁵ Screening for these conditions among personnel and their household contacts resulted

in 11 to 34% of personnel temporarily deferring vaccination.⁶ This response underscores the need for vaccine adverse event surveillance.

Adverse events can be categorized as self-limiting reactions and reactions which may require therapy. Self-limiting reactions include fever, headache, fatigue, myalgia, chills, local skin reactions, nonspecific rashes, erythema multiforme, lymphadenopathy, and pain at vaccination site. Reactions which may require therapy include inadvertent inoculation, generalized vaccinia, eczema vaccinatum, progressive vaccinia, postvaccinial central nervous system disease, fetal vaccinia, and myopericarditis.

Maintaining a low level of vaccine adverse events depends on an effective tracking system. This report summarizes the smallpox vaccine adverse events reported through the Navy and Marine Corps surveillance system.

Reporting Process

The civilian Vaccine Adverse Event Reporting System (VAERS) was established in 1990 under the joint administration of the Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA).⁷ It is a passive surveillance system accepting reports of events which are voluntarily submitted by those who experience them.

In the Navy and Marine Corps, vaccine related adverse events are medically reportable events according to both the Tri-Service Reportable Events

list and Navy instruction.^{8,9} The Anthrax Vaccine Immunization Program (AVIP) established in 1999, has clearly delineated requirements for reporting.¹⁰ Reporting for the smallpox vaccination program is currently modeled after these guidelines.

Navy policy dictates that a VAERS-1 form be submitted to both the FDA and the Navy Environmental Health Center (NEHC) for all Navy and Marine Corps personnel. NEHC then acts as the surveillance hub for tracking adverse events in that population.

Methods

Data for this analysis is collated at the Navy Environmental Health Center (NEHC). Vaccine adverse event reports received are classified into serious versus non-serious reactions per CDC classification. Serious adverse events are those where the patient died, experienced life-threatening illness, hospitalization or prolongation of hospitalization, or permanent disability. A non-serious adverse event includes any other adverse event reported.

All reports of smallpox vaccine related adverse events sent to NEHC from January 1, 2003 to May 1, 2003 were included in this analysis. Individual reports were not evaluated for a causal association between the vaccine and the adverse event. Descriptive statistics for age, sex, branch of service, time to adverse event, and serious versus non-serious events were calculated using MS Excel. For the rate calculations, denominators reflect the number of personnel estimated to have received smallpox vaccine.

Results

As of May 1, 2003, 93 smallpox vaccine related reports had been received at NEHC and approximately 159,000 Navy and Marine Corps personnel had been vaccinated. Figure 1 shows the number of reports received by week. Spikes are likely indicative of either active solicitation of reports or mass vaccination programs.

Reporting Processes

Figure 2 shows the distribution of reports by reporting mechanism. Four different mechanisms are used for reports to arrive at NEHC: mail, fax, email, or the Naval Disease Reporting System (NDRS). NDRS is an electronic system for reporting medical events. If NDRS is used, there is a component containing the VAERS-1 form. Thirty-eight percent of the reports were received through NDRS followed closely by mail at 30%.

Distribution of Adverse Events

Figures 3-7 describe the distribution of reports by age and gender, duty status, service, vaccine combination, and severity. Of the VAERS received, 22 were female (23.7%) and 71 were male (76.3%). The mean time from date of vaccination to adverse event was 8.67 days (range 0-36; median 9) and the mean lost duty time reported per adverse event was 0.40 days (range 0-14). From January 1, 2003 to May 1, 2003 the rate of smallpox adverse events report for Navy personnel was 68 per 100,000 and the rate of smallpox adverse events reported for Marine Corps personnel was 41 per 100,000.

Serious Adverse Events

Eight (8.6%) of the events reported were serious adverse events resulting in hospitalization for 36 total days (mean 4.5; median 3; range 2-14). Among the serious adverse events, all were male. The mean time from date of vaccination to event was 8.38 days (range 1-23). The rate of serious adverse events in the Navy was 3 per 100,000 and in the Marine Corps was 8 per 100,000. All cases survived.

Conclusion/Discussion

Tracking of vaccine adverse events remains an essential surveillance function in the US military. Rates were much less than expected based on numbers from prior vaccine campaigns. This may be due to a number of factors including the use of a less virulent strain in the vaccine, good tech-

nique for administering the vaccine, effective screening out of high-risk individuals, and a healthier target population.

There are a number of challenges faced in the adverse event reporting system. The military reporting system uses the VAERS-1 form, a standardized civilian form. Consequently, data elements of specific use to a military surveillance system (including service, duty status, and Social Security Number) are not included in the standard VAERS-1 format and reporters must know/remember to include these elements in the comments section. These are required minimum elements of a Navy and Marine Corps medical event report; therefore, if NDRS is used to submit a report the additional data fields are available.⁹ However, if a VAERS-1 form is filled out and submitted through other reporting vehicles, it can be difficult to follow up and get the necessary information from the original reporter. Use of NDRS for reporting provides the necessary demographic fields as well as meeting privacy regulations. Finally, the flow of reporting can be confusing and there are the inherent problems encountered in any passive reporting system.

Continuous analysis and evaluation of the program have led to improvement in the reporting process. However, frequent communication

with the field is vital to ensure completeness of vaccine adverse event reporting. Smallpox vaccine adverse events remain an important issue and will continue to be closely monitored.

References

1. Department of Health and Human Services. Centers for Disease Control and Prevention (CDC). Smallpox Vaccine: Adverse Event Rates, 1968.
2. Department of the Navy, Chief of Naval Operations Message "Smallpox Vaccination Program (SVP) Medical Guidance" 101615ZJan03
3. Department of Defense, Assistant Secretary of Defense Smallpox Clinical Policy for Smallpox Vaccine Program, 26Nov02.
4. CDC. Update: cardiac-related events during the civilian smallpox vaccination program---United States, 2003. MMWR 2003; 52:492-6.
5. CDC. Notice to Readers: Supplemental Recommendations on Adverse Events Following Smallpox Vaccine in the Pre-Event Vaccination Program: Recommendations of the Advisory Committee on Immunization Practices. MMWR 2003 April; 52(13):282-284.
6. Grabenstein JD, Winkenwerder W, US Military Smallpox Vaccination Program Experience, JAMA 2003 June; 289 (24):3278-82.
7. Vaccine Adverse Event Reporting System. <http://www.vaers.org/vaers.htm>, accessed 10/2/03.
8. Tri-Service Reportable Events Guidelines and Case Definitions. Version 1.0. July 1998.
9. Department of The Navy, Bureau of Medicine Instruction, 6220.12A, Medical Event Reports 21 Oct 98.
10. Department of Defense, Assistant Secretary of Defense Memorandum "Policy for Reporting Adverse Events Associated with the Anthrax Vaccine." 15 Oct 1999.

Figure 1. VAERS Received at NEHC

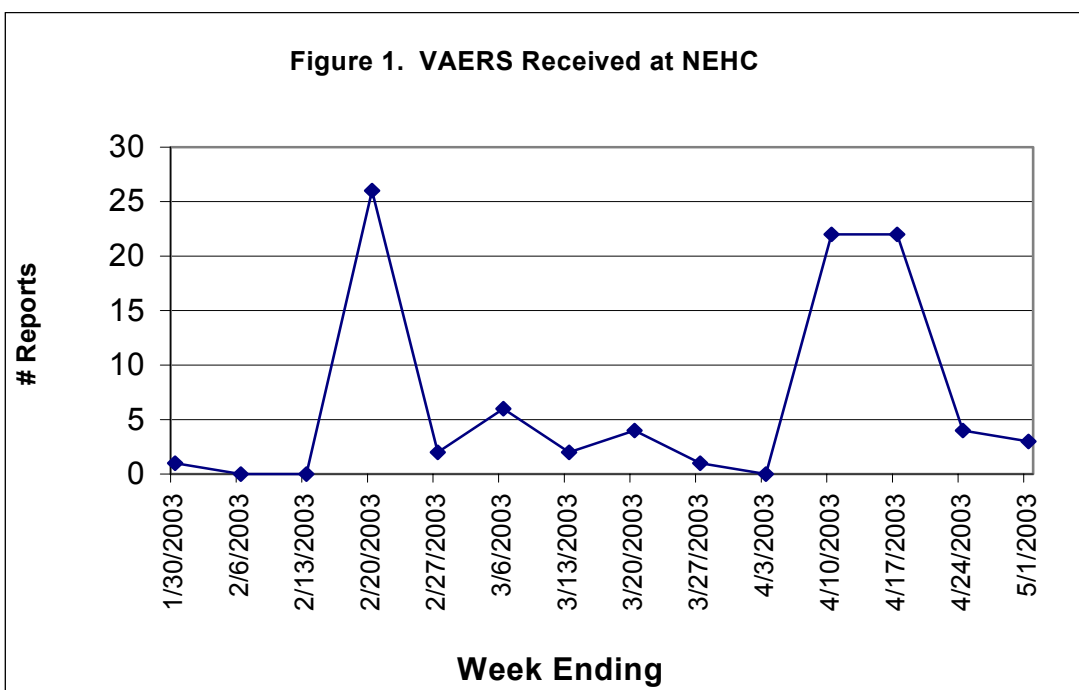


Figure 2. Vaccine Adverse Event Reports by Reporting Route

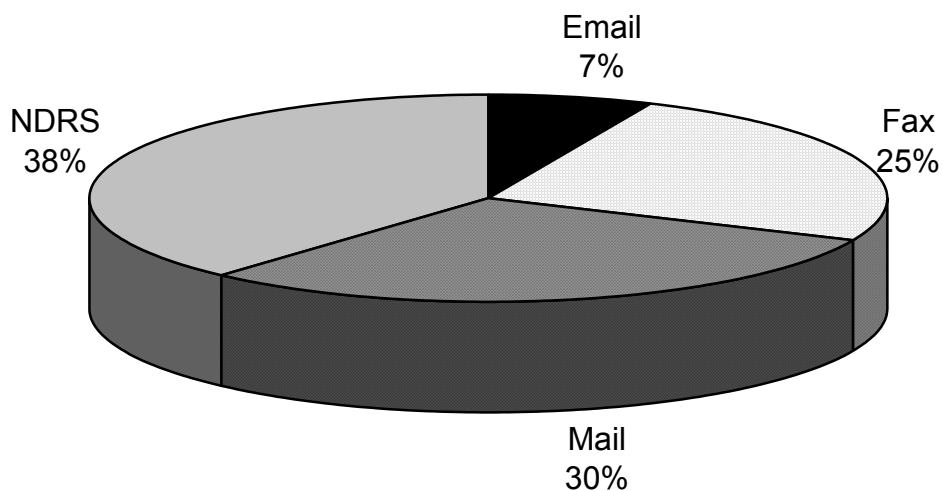


Figure 3. Age/Gender Distribution of Smallpox Vaccine Adverse Events

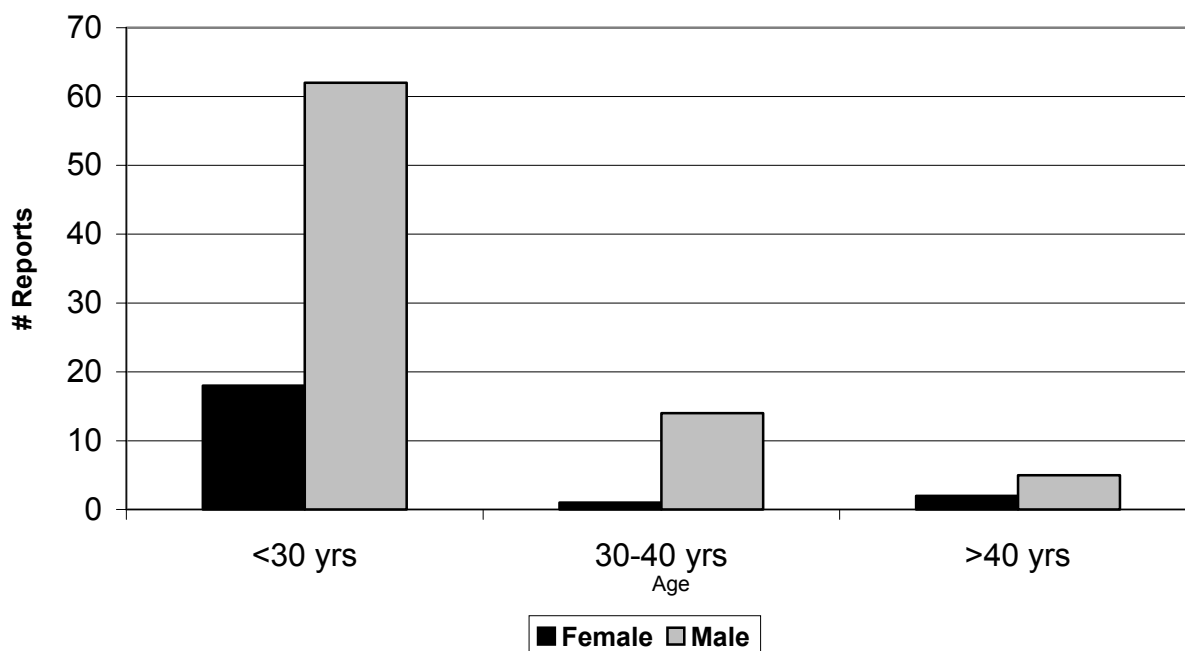


Figure 4. Vaccine Adverse Event Reports by Duty Status

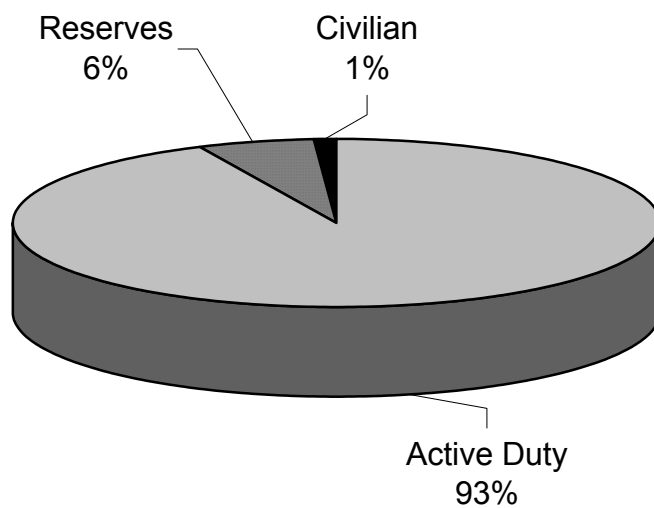


Figure 5. Vaccine Adverse Event Reports by Service

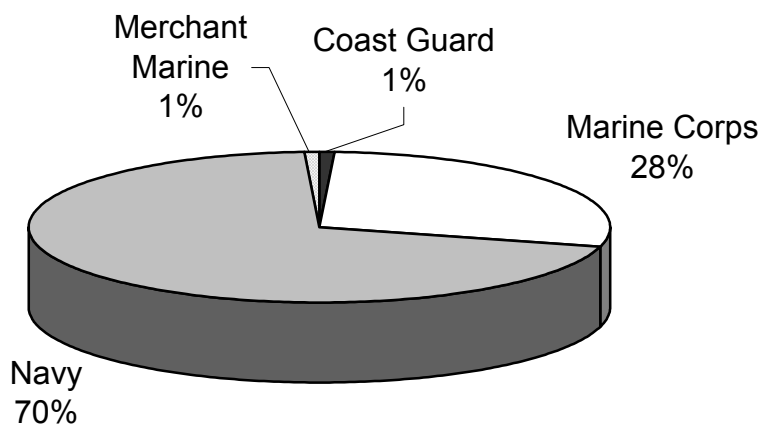


Figure 6. Vaccine Adverse Event Reports by Vaccine(s) Administered

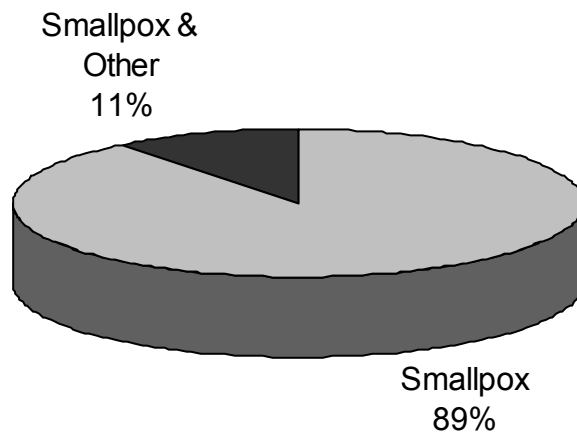
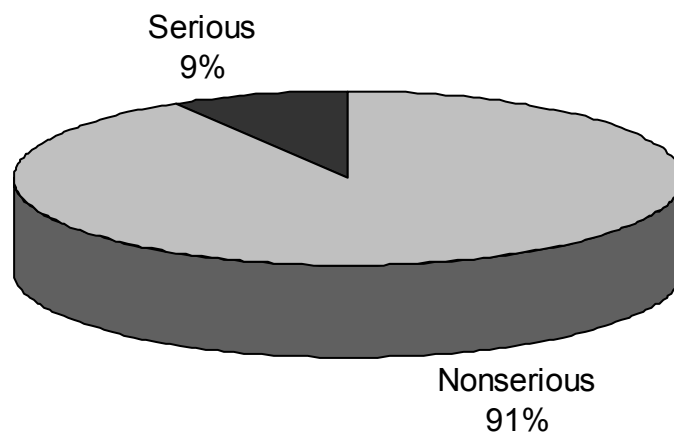


Figure 7. Vaccine Adverse Event Reports by Event Severity



Vaccine Adverse Event Reporting System (VAERS) Update

Table 1 displays the total Anthrax VAERS reports submitted by each service to the Army Medical Surveillance Activity through 26 Sept 2003 in support of the Anthrax Vaccine Immunization Program. Reactions are classified per DoD Memorandum 15 October 1999, Policy for Re-

porting Adverse Events Associated with the Anthrax Vaccine. Table 2 displays all VAERS reports, by vaccine type, submitted to NEHC through 26 Sept 2003. Reactions are classified using adverse event guidelines of the Centers for Disease Control and Prevention.

Table 1. Anthrax Vaccine Immunization Program VAERS Cumulative Data by Service
(28 Aug 1998 - 26 Sept 2003)

Service	Classification				Cum. Totals
	Local Reaction			Systemic Reaction	
	Mild	Moderate	Severe		
USA	22	30	13	79	144
USN	8	15	11	63	97
USAF	35	77	50	397	559
USMC	1	13	3	20	37
USCG	0	1	0	0	1

*Excludes 4 VAERS Reports on Anthrax and Non-DoD Reports

Table 2. Navy and Marine Corps VAERS Cumulative Data by Vaccine Type
(01 Dec 2002 - 26 Sept 2003)

Vaccination/Event	Classification		Cum. Totals
	Serious*	Non-serious*	
Anthrax	1	29	30
Smallpox	6	91	97
Anthrax + Smallpox	3	8	11
Other	0	4	4
Cum. Totals	10	132	142

* CDC defines serious adverse events as death, life-threatening illness, hospitalization or prolongation of hospitalization, or permanent disability. A non-serious adverse event then includes any other adverse event reported (<http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5201a1.htm>)

DEPARTMENT OF THE NAVY

Commanding Officer

Navy Environmental Health Center

620 John Paul Jones Circle Suite 1100

Portsmouth, VA 23708-2103

Official Business